

Name: _____

p1105: Factoring when $a = 1$ (v6)

Example: Factor $x^2 + 5x - 24$

Find two numbers whose product is -24 and whose sum is 5 . Focus on finding factor pairs of -24 . Eventually you consider 8 and -3 because $(8)(-3) = -24$. You verify this pair is correct because $(8) + (-3) = 5$. Thus, your answer:

$$(x + 8)(x - 3)$$

1. Factor $x^2 + 11x + 24$

2. Factor $x^2 - 5x - 24$

3. Factor $x^2 - 4$

4. Factor $x^2 - 5x + 6$

5. Factor $x^2 + 5x + 6$

6. Factor $x^2 + x - 56$

7. Factor $x^2 - x - 12$

8. Factor $x^2 + 8x - 9$

9. Factor $x^2 - x - 42$

10. Factor $x^2 - 4x - 32$

11. Factor $x^2 - 16$

12. Factor $x^2 - x - 72$

13. Factor $x^2 + 5x - 24$

14. Factor $x^2 - 8x + 15$

15. Factor $x^2 - 12x + 36$